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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,614	07/21/2003	Kenichi Watanabe	030877	2630

38834 7590 01/12/2006

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EXAMINER
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WILLIAMS, ALEXANDER O

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/622,614

Applicant(s)

WATANABE, KENICHI

Examiner

Alexander O. Williams

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on CPA and IDS filed 12/2/05.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.  
4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,8,10,12,20,22,24,26,28,31,34 and 37 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 2-7,9,11,13-19,21,23,25,27,29,30,32,33,35,36 and 38-41.

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Serial Number: 10/622614 Attorney's Docket #: 030877

Filing Date: 7/21/03; claimed foreign priority to 7/31/2002

Applicant: Watanabe

Examiner: Alexander Williams

Applicant's RCE filed 12/8/05 has been acknowledged.

Applicant's election of Species of figure 4 (claims 1, 8, 10, 12, 20, 22, 24, 26, 28, 31, 34 and 37), filed 5/6/04, has been acknowledged. Claim 1 is found to be generic to these claims.

This application contains claims 2-7, 9, 11, 13-19, 21, 23, 25, 27, 29, 30, 32, 33, 35, 36 and 38-41 drawn to an invention non-elected without traverse.

Note: There was no PTO/SB/08 or PTO 1449 form attached in the IDS filed 12/2/05

The indicated allowability of claims , 8, 10, 12, 20, 22, 24, 26, 28, 31, 34 and 37 are withdrawn in view of the newly discovered reference(s) to Kazuhiko and Kazumi et al.. Rejections based on the newly cited reference(s) follow.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 8, 10, 12, 20, 22, 24, 26, 28, 31, 34 and 37 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kazuhiko (Japan Patent # 2000-269219).

1. For example, in claim 1, Kazuhiko (figures 1 to 12) specifically figures 1, 2 and 10 show a semiconductor device comprising: a first insulating film **40A** formed over a substrate; a first interconnection **45Sub(1b)** buried in at least a surface side of the first insulating film, the first interconnection having a pattern which is bent at a right angle; a second insulating film **41E** formed on the first insulating film with the first interconnection buried in, and including a groove-shaped via hole **25B** formed in a region above the first interconnection, the groove-shaped via-hole having a pattern which is formed along an extending direction of the first interconnection and is bent at a right angle; and a first buried conductor filled **25C** in the groove-shaped via-hole.

Claims 1, 8, 10, 12, 20, 22, 24, 26, 28, 31, 34 and 37 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kazumi (Japan Patent # 2003-86590).

1. For example, in claim 1, Kazumi (figures 1a to 8B) specifically figures 1, 2 and 4 show a semiconductor device comprising: a first insulating film **10** formed over a substrate **1**; a first interconnection **22,19,15,11** buried in at least a surface side of the first insulating film, the first interconnection having a pattern which is bent at a right angle; a second insulating film **13** formed on the first insulating film with the first interconnection buried in, and including a groove-shaped via hole **30** formed in a region above the first interconnection, the groove-shaped via-hole having a pattern which is formed along an extending direction of the first interconnection and is bent at a right angle; and a first buried conductor filled **22,19,15,11** in the groove-shaped via-hole.

Field of Search	Date
U.S. Class and subclass: 257/758,776,775,700,701,751,753,774,762,763,765,767 438/629,619,622	7/24/04 12/12/05
Other Documentation: foreign patents and literature in 257/758,776,775,700,701,751,753,774,762,763,765,767 438/629,619,622	7/24/04 12/12/05
Electronic data base(s): U.S. Patents EAST	7/24/04

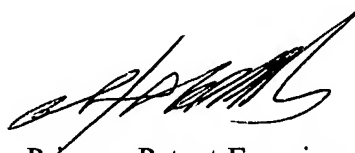
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander O Williams whose telephone number is (571) 272 1924. The examiner can normally be reached on M-F 6:30-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272 1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AOW  
12/12/05



Primary Patent Examiner  
Alexander O. Williams